

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A package comprising:
a die including an active surface;
a substrate electrically coupled with the active surface; and
an interposer between the die and the substrate, wherein the interposer has a body with a first surface, an opposite second surface, and a fluid channel passing through the body from the first surface to the second surface, wherein the substrate does not include a fluid channel in fluid communication with the fluid channel of the interposer.
2. (Previously Presented) The package of claim 1 wherein the first surface is adapted to receive the die on a die receiving portion thereof, wherein the die receiving portion includes an outline defining a die shadow region in a direction from the first surface to the second surface, wherein the fluid channel lies in the die shadow region.
3. (Previously Presented) The package of claim 2 wherein the fluid channel includes a vent hole to facilitate capillary flow of underfill mixture dispensed between the interposer and the substrate.
4. (Previously Presented) The package of claim 3 wherein underfill mixture dispensed between the interposer and the substrate includes a meniscus formed within the vent hole, and the meniscus substantially prevents the underfill from exiting the first surface of the interposer.
5. (Previously Presented) The package of claim 1 wherein the fluid channel lies outside of a die shadow region.

6. (Previously Presented) The package of claim 5 wherein the fluid channel includes a microchannel through which underfill is dispensed.
7. (Previously Presented) The package of claim 1 wherein there are at least two fluid channels formed in the interposer.
8. (Currently Amended) A package comprising:
a die including an active surface;
a substrate electrically coupled with the active surface; and
an interposer between the die and the substrate, wherein the interposer has a body
with a first surface, an opposite second surface, and a fluid channel passing through the
body from the first surface to the second surface. ~~The package of claim 7~~
wherein the first surface is adapted to receive the die on a die receiving portion
thereof, wherein the die receiving portion includes an outline defining a die shadow
region in a direction from the first surface to the second surface,
wherein there are at least two fluid channels formed in the interposer, wherein the
at least two fluid channels in the interposer includes a vent hole within the [[a]] die
shadow region and a microchannel that lies outside of the die shadow region, wherein
underfill is dispensed into the microchannel and between the interposer and substrate.
9. (Currently Amended) A packaging system comprising:
a die;
a substrate electrically coupled with the die;
an interposer between the die and the substrate, wherein the interposer has a body
with a first surface, an opposite second surface, and a fluid channel passing through the
body from the first surface to the second surface, wherein the substrate does not include a
fluid channel in fluid communication with the fluid channel of the interposer; and
underfill mixture dispensed between the interposer and the substrate using
capillary flow.

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10. (Previously Presented) The packaging system of claim 9 wherein the fluid channel is substantially centered in the interposer.
11. (Previously Presented) The packaging system of claim 9 wherein the fluid channel includes a vent hole within a die shadow region to facilitate capillary flow of the underfill mixture dispensed between the interposer and the substrate.
12. (Previously Presented) The packaging system of claim 9 wherein the fluid channel lies outside of a die shadow region, wherein the die shadow region extends from an active surface of the die through the interposer to the second surface.
13. (Cancelled)
14. (Previously Presented) The packaging system of claim 9 wherein there are at least two fluid channels formed in the interposer, including a channel within a die shadow region, and a channel that lies outside of the die shadow region.
15. (Withdrawn) A process comprising:
forming a channel through a channel body from a first surface of an interposer through to an opposite second surface of the interposer;
disposing the interposer between a die and a substrate; and
dispensing underfill between the interposer and the substrate, wherein the channel is at least one of a vent hole to facilitate capillary flow of the underfill mixture, and a microchannel through which the underfill mixture is dispensed.
16. (Withdrawn) The process of claim 15 wherein air escapes from between the interposer and the substrate through the vent hole as the underfill mixture is dispensed.
17. (Withdrawn) The process of claim 15 wherein the vent hole is substantially centered in the interposer.

18. (Withdrawn) The process of claim 15 wherein the microchannel lies outside of a die shadow region.
19. (Withdrawn) The process of claim 18 further comprising positioning an underfill dispenser nozzle to the first surface of the interposer at the channel.
20. (Withdrawn) The process of claim 19 further comprising positioning an underfill dispenser nozzle adjacent an outer edge of the die to dispense the underfill mixture in the channel.
21. (Withdrawn) The process of claim 15 further comprising positioning the vent hole within a die shadow region, and positioning an underfill dispenser nozzle adjacent an outer edge of the die to dispense the underfill mixture through the microchannel and between the interposer and the substrate.
22. (Withdrawn) The process of claim 15 further comprising dispensing the underfill mixture from a plurality of underfill mixture dispensers substantially simultaneously while allowing air to escape from between the substrate and the interposer via the vent hole.
23. (Withdrawn) The process of claim 22 further comprising forming a plurality of microchannels in the interposer about the die, wherein the plurality of dispensers are positioned at the plurality of microchannels, respectively, to dispense the underfill mixture.
24. (Withdrawn) The packaging system of claim 9 wherein the fluid channel includes a microchannel through which the underfill mixture is dispensed.

25. (New) The package of claim 8 wherein the vent hole facilitates capillary flow of underfill mixture dispensed between the interposer and the substrate.

26. (New) The package of claim 25 wherein underfill mixture dispensed between the interposer and the substrate includes a meniscus formed within the vent hole, and the meniscus substantially prevents the underfill from exiting the first surface of the interposer.